

## CLAIMS

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Docket Number P00039902

1. A global storage system for use with computer networks, further comprising:
  - a computer network having a plurality of computers;
  - at least one of the computers is a storage domain server;
  - at least one physical storage device is controlled by the storage domain server;
  - a storage area network, at least two of computers in the computer network attached to each other via the storage network; and
  - a storage domain, further comprising:
    - means to map the physical storage devices to logical devices the storage domain servers;
    - means to control access to the logical devices in the storage domain servers; and
    - an interface between the storage area network and the storage domain server which presents the logical devices to the storage area network;
  - whereby access to data on a storage domain server is made to a logical device that represents a physical device.
2. A system, as in claim 1, further comprising:
  - means in the storage domain to access devices allocated to the storage domain server.

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3. A system, as in claim 2, wherein:

the storage domain authorizes access to logical devices.

4. A system, as in claim 3, further comprising:

a plurality of storage domains, each storage domain having means to access a selected storage domain server.

5. A system, as in claim 4, wherein:

at least two storage domains concurrently have access to the same storage domain server.

6. A system, as in claim 5, wherein:

at least two storage domains concurrently have access to the same logical device.

7. A system, as in claim 6, further comprising:

at least one fiber channel having a data protocol; and

the storage area network having means to use the fiber channel data protocol to move data between computers.

8. A method of providing global data storage on computer networks, including the steps of:

interconnecting a plurality of computers in a storage area network;

using at least one storage domain server as one of the computers in the storage area network;

attaching at least one physical storage device to the storage domain server;

controlling access to the physical devices in the storage domain server with a storage domain;

mapping the physical devices attached to the storage domain server to logical devices; and

controlling access to the logical devices with the storage domain;

whereby access to data on a logical device in a storage domain server is made independently of a physical device.

9. A method, as in claim 8, including the additional step of:

using the storage domain to control access physical devices attached to the storage domain server.

10. A method, as in claim 9, including the additional step of:

using the storage domain to control access to logical devices.

11. A method, as in claim 10, including the additional step of:

allowing access to a selected storage domain server by at least two storage domains.

12. A method, as in claim 11, including the additional step of:

concurrently accessing the selected storage domain server from at least two storage domains.

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13. A method, as in claim 12, including the additional step of:

concurrently accessing a selected logical device by at least two storage domains.

14. A method, as in claim 12, including the additional steps of:

using at least one fiber channel to move data between computers in the storage area network.

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